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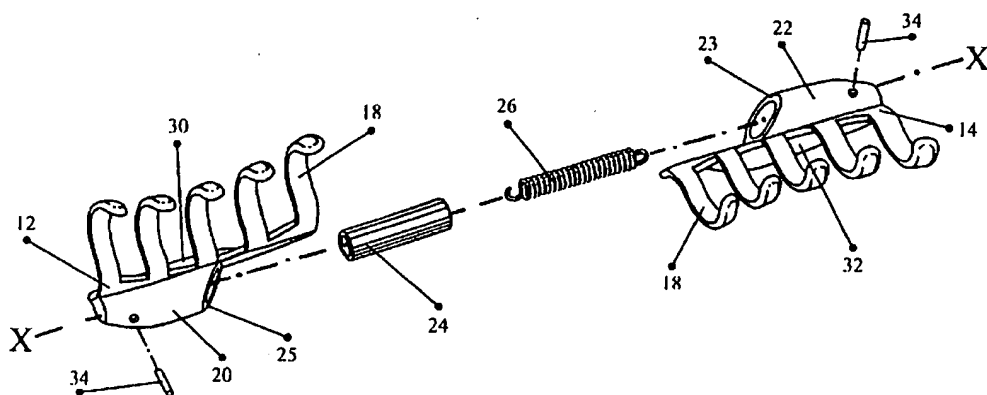
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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: HAIR ORNAMENT WITH A RESILIENT ATTACHING CLIP



(57) Abstract: Hair ornament with a resilient attaching clip comprising a pair of complementary transversally elongated limbs (12, 14) having handle portions (30, 32) and which are connected by hinge and spring means (16) and having suitably shaped prongs (18) extending from each elongated limbs (12, 14) and forming a pair of clipping portions wherein each elongated limb comprises a socket (20, 22) having a hollow cylindrical recess and which forms at the inner opposite end abutting sliding planes (23, 25), as well as a bushing (24) which is received in a recess provided in the respective socket of each limb, whereby the limbs are pivoted to each other and a spring (26) inserted in the bushing extending into the sockets and being attached at both ends by suitable means at the outer end of the sockets in order to bias the limbs in the closed position.

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HAIR ORNAMENT WITH A RESILIENT ATTACHING CLIP

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FIELD OF THE PRESENT INVENTION

[0001] The invention relates to a hair ornament and particularly to a device having an esthetical aspect, i.e. a highly ornamental appearance and comprising novel means
15 combined therewith for attaching it to the hair of the wearer.

[0002] An important object of the invention is to provide such a device wherein the means for attaching the device to the hair is in the form of a clip positioned by a
20 hinge and spring means which remain wholly hidden from view when the ornament is borne in the hair, and which can be firmly clamped in the hair.

BACKGROUND AND PRIOR ART OF THE PRESENT INVENTION

25 [0003] Devices intended to be used as an ornament and comprising a resilient attaching clip have been widely used.

[0004] They comprise a spring mean intended to clip two parts or limbs connected by a hinge for securing the
30 device to the hair of the wearer.

[0005] Such hinge and sometimes the spring are externally visible and sometimes hair remains entangled with the hinge mechanism.

[0006] Obviously, the visibility of the hinge and

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spring and, of course, the possibility of entanglement with the hair are undesirable features, which the device of the invention seeks to avoid.

[0007] Other objects and advantages of the invention
5 will become apparent during the course of the following description.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] Figure 1 is an exploded view of the main
10 parts of the device according to the invention ;

[0009] Figure 2 is a side perspective view of the device in closed position ;

[0010] Figure 3 is a further perspective face view of the device in open position.

15 [0011] Figure 4 is a view corresponding to Figure 2 but in an open position ;

[0012] In the drawings, the same numerals are used for identical parts for all the Figures.

20 DESCRIPTION OF A PREFERRED EMBODIMENT OF THE INVENTION

[0013] Referring to the drawings, the numeral 10 designates the body of the device shown in the present instance as comprising a pair of complementary transversally elongated limbs 12 and 14, which are
25 connected by hinge and spring means 16 and having suitably shaped prongs 18 extending from each elongated limbs 12 and 14. The prongs 18 form a pair of clipping portions or jaws allowing, when they are in the closed position, to maintain the device in the hair of the bearer.

30 [0014] Each elongated limb 12 and 14 comprises a socket 20 and 22 (represented as substantially cylindrical shaped), having a hollow cylindrical recess which is preferably closed at the outer end thereof and which forms at the inner opposite end to the outer end, abutting

sliding planes 23 and 25 which, as represented, are inclined at an angle of 45° approximately in respect of the common axis X-X' of the elongated sockets 20 and 22.

[0015] The socket 20, as represented for one limb 12 extends over one half of the length of said limb and the socket 22 for the second limb 14 also extends over one half of the length of the corresponding limb.

[0016] A bushing 24 may be received in the recesses of the sockets 20 and 22 and a spring 26 may be in turn located in the bushing 24.

[0017] The limbs 12 and 14 are thus pivoted to each other by means of said bushing 24. Furthermore, the spring 26 located in the bushing 24 extends into the sockets 20 and 22 and is attached at both ends by suitable means, such as the pins or plugs 34 at the outer end of the sockets 20 and 22 so as to bias the limbs 12 and 14 in the closed position.

[0018] The spring 26, as shown at both ends comprises hook parts allowing the mounting of the device in the closed position with the pins 34 securing the spring in a permanent traction bias to clip into the hair. When the lugs 30, 32 are pressed, the rotation of the limbs 12 and 14 will cause the stretching out (extension) of these limbs causing the elongation of the spring. When these lugs are no longer pressed, the limbs revert to the closing (gripping) position.

[0019] Handle portions 30 and 32 in the form of lugs allow to open the device starting from an abutment position (such as represented in Fig. 2) to an open position (as in Fig. 3 and 4).

[0020] Although in Figure 1, the bushing is represented as a separate part, said bushing could be solid with e.g. the socket 20, i.e. be part of the socket but having an outer smaller diameter in order to allow it to be

received into the socket 22.

[0021] In Fig. 2, the contact of the prongs 18 of each limb 12 and 14 causes the abutment position.

[0022] The prongs 18 could however be offset for the
5 first limb 12 compared to the prongs 18 for the second limb 14 and abutment parts may then be provided at suitable positions on the limbs proper in the closed position.

[0023] The sliding planes 23, 25 will cause the limbs 12 and 14 when the lugs 30, 32 are pressed by the
10 fingers of the user against the biasing due to the spring 26 to move from the position of Fig. 2 toward the position of Fig. 3 and 4 but also to "stretch out" the limb 12 of the device from the limb 14, thus extending the spring 26.

[0024] As soon as the pressing action is released,
15 under the action of the spring 26, a sliding of the two inclined planes 23, 25 of the sockets 20 and 22 will cause the device to revert to its initial closed position.

[0025] As seen from the outside (rear) of the device, the two sliding planes appear as an inclined line,
20 thus forming a hidden hinge in all the positions of the device (open or closed). Furthermore, the spring 26 also remains hidden from the view, be it for the outside or the inside, only the bushing 24 being visible from the inside.

[0026] The number of prongs and their position as
25 well as their shape can of course be adapted to the intended specific use and are not necessarily as shown on the drawings.

[0027] The device of the invention can be made of metal or plastic.

30 The finger grasping portion (i.e. the lugs 30, 32) can also have various dimensions and sizes, provided they can be used properly as handles.

[0028] It should be noted that the spring 26 may also be fixed by the pins 34, in the closed position of the

device not only as being biased under traction but also as being twisted in such a manner that the opening movement under the pressure on the lugs 30 and 32 will cause it to be twisted even more. In such case the planes 23 and 25
5 may have an inclination different from what is shown and may even be perpendicular to the said axis X-X'.

[0029] It is to be understood that the form of the invention shown and described is to be taken as a preferred example of the same and that various changes in the shape,
10 size and arrangement of the parts may be made, without departing from the scope of the claims.

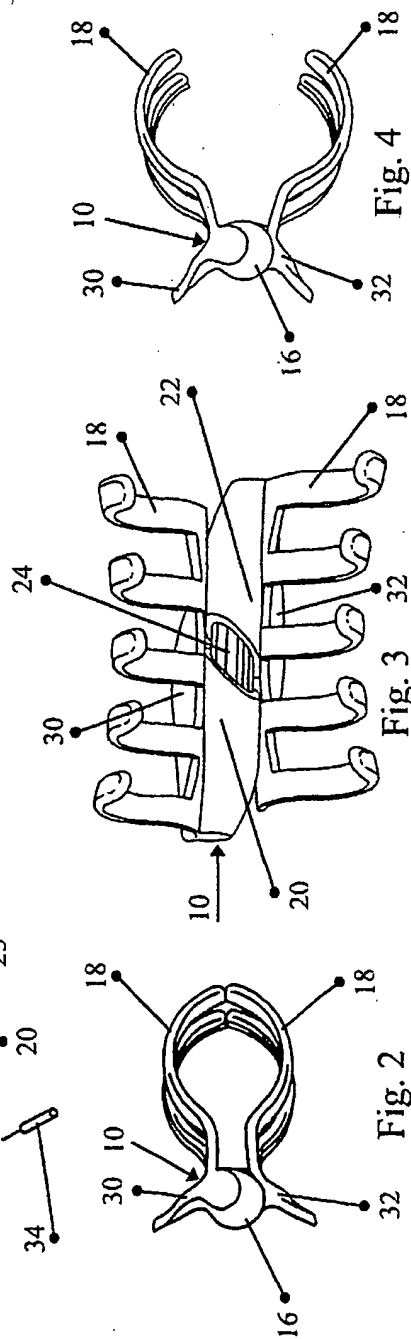
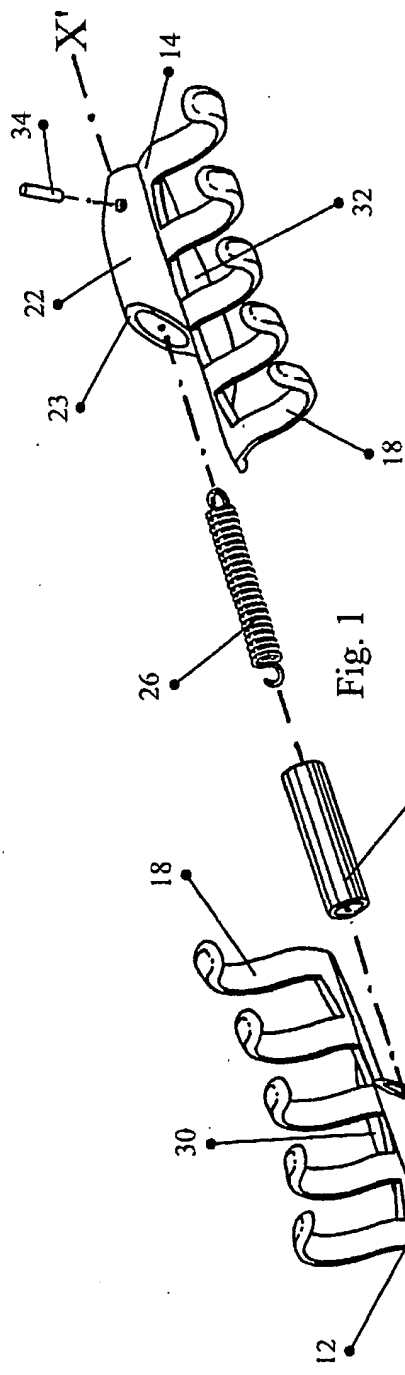
CLAIMS

1. Hair ornament with a resilient attaching clip comprising a pair of complementary transversally elongated limbs having handle portions and which are
5 connected by hinge and spring means and having suitably shaped prongs extending from each elongated limbs and forming a pair of clipping portions wherein each elongated limb comprises a socket having a hollow cylindrical recess and which forms at the inner opposite end abutting sliding
10 planes, as well as a bushing which is received in a recess provided in the respective socket of each limb, whereby the limbs are pivoted to each other, and a spring inserted in the bushing, extending into the sockets and being attached at both ends by suitable means at the outer end of the
15 sockets in order to bias the limbs in the closed position.

2. Hair ornament according to claim 1, wherein the said sliding planes are inclined at an angle of approximately 45° in respect of a common axis of the said sockets, in order to cause the stretching out of the limbs
20 and the elongation of the spring against its bias, when the handle portions are pressed.

3. Hair ornament according to claim 1, wherein the said prongs are in an abutment position when the hair ornament is in the closed position.

25 4. Hair ornament according to claim 1, wherein the said prongs are offset for the first limb compared to the prongs for the second limb, parts provided on the limbs abutting each other in the closed position.



INTERNATIONAL SEARCH REPORT

Application No
PCT/IB 01/00109

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A45D8/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A45D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 494 060 A (POTUT CHRISTIAN) 27 February 1996 (1996-02-27) the whole document	1-4
A	US 6 082 371 A (BADER-SALTZMAN GERALDINE ROSE ET AL) 4 July 2000 (2000-07-04) the whole document	1-4

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

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